

Advanced Search:

Inspec - 1898 to date (INZZ)


[limit](#)


Search history:

No.	Database	Search term	Info added since	Results	
1	INZZ	underwater AND acoustic AND communications	unrestricted	613	show titles
2	INZZ	hydrophone ADJ array	unrestricted	292	show titles
3	INZZ	1 AND 2	unrestricted	8	show titles
4	INZZ	coherent ADJ communications	unrestricted	106	show titles
5	INZZ	1 AND 4	unrestricted	10	show titles

[hide](#) | [delete all search steps...](#) | [delete individual search steps...](#)

Enter your search term(s): [Search tips](#) ☐ Thesaurus mapping



Information added since: or: 

(YYYYMMDD)

[search](#)

☐ Documents with images

Select special search terms from the following list(s):

- ☒ Publication year 1950-
- ☒ Publication year 1898-1949
- ☒ Inspec thesaurus - browse headings A-G
- ☒ Inspec thesaurus - browse headings H-Q
- ☒ Inspec thesaurus - browse headings R-Z
- ☒ Inspec thesaurus - enter a term
- ☒ Classification codes A: Physics, 0-1
- ☒ Classification codes A: Physics, 2-3
- ☒ Classification codes A: Physics, 4-5
- ☒ Classification codes A: Physics, 6
- ☒ Classification codes A: Physics, 7
- ☒ Classification codes A: Physics, 8
- ☒ Classification codes A: Physics, 9
- ☒ Classification codes B: Electrical & Electronics, 0-5
- ☒ Classification codes B: Electrical & Electronics, 6-9

Document

Select the documents you wish to save or order by clicking the box next to the document, or click the link above the document to order directly.

! INFORMATION - Order has been sent

[previous documents](#)
[next documents](#)
[save](#)

 locally as:

 search strategy:
[order](#)
☒ Select All

6 A bidirectional coherent acoustic communication system for underwater vehicle

8 Multicarrier coherent communications for the underwater acoustic chann

☒ document 6 of 10 [Order Document](#)

Inspec - 1898 to date (INZZ)

Accession number & update

0006201734 20051201.

Title

A bidirectional **coherent acoustic** communication system for **underwater** vehicles.

Conference information

IEEE Oceanic Engineering Society. OCEANS'98. Conference Proceedings, Nice, France, 28 Sept.-1 Oct. 1998.

Source

IEEE Oceanic Engineering Society. OCEANS'98. Conference Proceedings (Cat. No.98CH36259), 1998, vol.1, p. 482-6 vol.1, 5 refs, pp. 3 vol. xxxi+1853, ISBN: 0-7803-5045-6.

Publisher: IEEE, New York, NY, USA.

Author(s)

[Freitag-L](#), [Grund-M](#), [Singh-S](#), [Smith-S](#), [Christenson-R](#), [Marquis-L](#), [Catipovic-J](#).

Author affiliation

Freitag, L., Grund, M., Singh, S., Woods Hole Oceanogr. Instn., MA, USA.

Abstract

An **acoustic** modem for bidirectional communication with an unmanned **underwater** vehicle has been developed and installed on the Florida Atlantic University Ocean Explorer. The modem is used to test and demonstrate two-way **phase-coherent communications** between surface platforms and AUVs. However, in addition to serving as a testbed for investigating specific issues associated with high-rate vehicle **communications**, the modem has been used in actual practice to transmit vehicle status information, CTD data and compressed images to observers on the surface in near real-time. The system includes both medium frequency (2-4 kHz) and high frequency (20-30 kHz) transmission capability for short and medium range data uplink, as well as a towed array for reception at the medium frequency (MF) and a small vertical array for use at the high frequency (HF). The communication system has been tested in Florida, New England and the Bahamas where ranges of 2 km at HF and 4 km at MF have been achieved at burst rates of 6700 bps and 1670 bps respectively in water depths of 10-30 m.

Descriptors

[ACOUSTIC-DEVICES](#); [ACOUSTIC-TRANSDUCER-ARRAYS](#); [MODEMS](#); [REMOTELY-OPERATED-VEHICLES](#); [UNDERWATER-ACOUSTIC-TELEMETRY](#); [UNDERWATER-VEHICLES](#).

Classification codes

[B6270 Other-telecommunication-systems-and-equipment*](#);

[B62101 Telemetry](#);

[B62201 Modems](#).

Keywords

bidirectional-coherent-acoustic-communication-system; **underwater- vehicles**; **acoustic-modem**; **unmanned-underwater-vehicle**; Florida-Atlantic-University-Ocean-Explorer; **two-way-phase-coherent- communications**; AUV;

vehicle-status-information; CTD-data; compressed- images; data-uplink; towed-array; vertical-array; burst-rates; 6700-bit/s; 10-to-30-m; 2-to-4-kHz; 1670-bit/s; 20-to-30-kHz.

Treatment codes

P Practical;
X Experimental.

Numerical indexing

bit rate: 6.7E03 bit/s.
depth: 1.0E01 to 3.0E01 m.
frequency: 2.0E03 to 4.0E03 Hz.
bit rate: 1.67E03 bit/s.
frequency: 2.0E04 to 3.0E04 Hz.

Language

English.

Publication type

Conference-proceedings.

Availability

CCCC: 0 7803 5045 6/98/\$10.00.

Digital object identifier

10.1109/OCEANS.1998.725794.

Publication year

1998.

Publication date

19980000.

Edition

1999012.

Copyright statement

Copyright 1999 IEE.

COPYRIGHT BY The IET, Stevenage, UK

☒ **document 8 of 10** [Order Document](#)

Inspec - 1898 to date (INZZ)

Accession number & update

0005545558 20051201.

Title

Multicarrier **coherent communications** for the **underwater acoustic** channel.

Conference information

OCEANS 96 MTS/IEEE Conference Proceedings. The Coastal Ocean - Prospects for the 21st Century, Fort Lauderdale, FL, USA, 23-26 Sept. 1996.
Sponsor(s): Marine Technol. Soc; OES; IEEE.

Source

'Prospects for the 21st Century' Conference Proceedings. OCEANS 96 MTS /IEEE (Cat. No.96CH35967), 1996, vol.3, p. 1125-30 vol.3, 6 refs, pp. 4 vol. (1564+vii+145), ISBN: 0-7803-3519-8.
Publisher: IEEE, New York, NY, USA.

Author(s)

Bejjani-E, Belfiore-J-C.

Author affiliation

Bejjani, E., Belfiore, J.-C., Dept. Commun., Ecole Nat. Supérieure des Telecommun., Paris, France.

Abstract

We propose a multicarrier transmission scheme for severely spread channels-but not overspread. The **underwater acoustic** channel is a good representative of this kind of channel. The technique of orthogonal data and pilot symbols allows **coherent** detection and therefore the use of QAM signal constellations. Some simulated performances of the proposed scheme are presented in both Rayleigh and Rician multipath fading. Acceptable error rate floors are shown to be possible for channel spread factor reaching 0.15.

Descriptors

ACOUSTIC-SIGNAL-DETECTION; FADING; MULTIPATH-CHANNELS; QUADRATURE-AMPLITUDE-MODULATION; RAYLEIGH-CHANNELS; RICIAN-CHANNELS; UNDERWATER-SOUND.

Classification codes

B6270 Other-telecommunication-systems-and-equipment*;
B6120 Modulation-and-coding-methods.

Keywords

multicarrier-coherent-communications; **underwater-acoustic-channel**; multicarrier-transmission-scheme; severely-spread-channels; orthogonal-data; pilot-symbols; **coherent-detection**; QAM-signal-constellations;

performances; Rayleigh-multipath-fading; Rician-multipath-fading; error-rate-floors; channel-spread-factor.

Treatment codes

T Theoretical-or-mathematical.

Language

English.

Publication type

Conference-proceedings.

Availability

CCCC: 0 7803 3519 8/96/\$5.00.

Digital object identifier

10.1109/OCEANS.1996.569060.

Publication year

1996.

Publication date

19960000.

Edition

1997014.

Copyright statement

Copyright 1997 IEE.

COPYRIGHT BY The IET, Stevenage, UK

previous
documents

next
documents

save

locally as:

PDF document



search strategy:

do not include the search strategy



order

Top - News & FAQs - Dialog

© 2006 Dialog

Titles

To view one or many selected titles scroll down the list and click the corresponding boxes. Then click display at the bottom of the page. To view one particular document click the link above the title to display immediately.

Documents 1 to 8 of 8 from your search "**(underwater AND acoustic AND communications) AND (hydrophone ADJ array)**" in all the available information:

Number of titles selected from other pages: 0

☐ **Select All**

☐ 1 [display full document](#)

2003. (INZZ) A new blind adaptive beamformer for **underwater communications**.

☐ 2 [display full document](#)

2000. (INZZ) A blind receiver for digital **communications** in shallow water.

☐ 3 [display full document](#)

1997. (INZZ) A deep-ocean fish tracking system using code-activated transponders and **hydrophone array**.

☐ 4 [display full document](#)

1997. (INZZ) An integrated **acoustic** remote sensing and **communications** system for tidal front mapping.

☐ 5 [display full document](#)

1997. (INZZ) Extended-aperture **underwater acoustic** multisource azimuth/elevation direction-finding using uniformly but sparsely spaced vector hydrophones.

☐ 6 [display full document](#)

1995. (INZZ) Instrumentation for the **Acoustic** Thermometry of Ocean Climate (ATOC) prototype Pacific Ocean network.

☐ 7 [display full document](#)

1988. (INZZ) Progress in optical fibre **hydrophone** arrays.

☐ 8 [display full document](#)

1987. (INZZ) Sounds and source levels from bowhead whales off Pt. Barrow, Alaska.

Selection	Display Format	Output Format	ERA SM Electronic Redistribution & Archiving	Action
<input checked="" type="radio"/> from this page <input type="radio"/> from all pages	<input checked="" type="radio"/> Full <input type="radio"/> Free <input type="radio"/> Short <input type="radio"/> Medium <input type="radio"/> Custom Help with Formats	<input checked="" type="radio"/> HTML <input type="radio"/> Tagged (for tables) <input type="radio"/> PDF <input type="radio"/> RTF <input type="radio"/> XML	Copies you will redistribute: <input type="text"/> Employees who will access archived record (s): <input type="text"/> Help with ERA	<input type="button" value="display"/> <input type="button" value="save"/> <input type="button" value="print preview HTML/tagged"/>
				<input type="button" value="order"/>
Sort your entire search result by <input type="text" value="Publication year"/> <input checked="" type="checkbox"/> Ascending <input checked="" type="checkbox"/>				<input type="button" value="sort"/>